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FIRST NAMED INVENTOR APPLICATION NO. FILING DATE ATTORNE DOCKET NO. 09/247,219 02/10/99 TOMASULA 862.004US1 **EXAMINER** IM22/0907 JOSEPH A LIPOVSKY DUBOIS,P USDA ARS OTT NATIONAL CENTER FOR ART UNIT PAPER NUMBER AGRICULTURAL UTILIZATION RESEARCH 1815 NORTH UNIVERSITY STREET 1761 PEORIA IL 61604 **DATE MAILED:** 09/07/00

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

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Office Action Summary	Application I	No.	Applicant(s)	
	09/247,219		Tomasula	
	Examiner		Art Unit	
	DuBois		1761	
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE $\underline{3}$ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.				
<ul> <li>Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>Status</li> </ul>				
1) Responsive to communication(s) filed on <u>29 June 2000</u> .				
2a)⊠ This action is <b>FINAL</b> . 2b)□ This action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims			:	
4)⊠ Claim(s) <u>1-14</u> is/are pending in the application.				
4a) Of the above claim(s) is/are withdrawn from consideration.				
5) Claim(s) is/are allowed.				
6)⊠ Claim(s) <u>1-14</u> is/are rejected.				
7) Claim(s) is/are objected to.				
8) Claims are subject to restriction and/or election requirement.				
Application Papers				
9) The specification is objected to by the Examiner				
10) The drawing(s) filed on is/are objected to by the Examiner.				
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved.				
12) The oath or declaration is objected to by the Examiner.				
D: 10 - 10 05 H 0 0 - 110				
Priority under 35 U.S.C. § 119				
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).				
a) All b) Some * c) None of the CERTIFIED copies of the priority documents have been:				
1. received.				
2. received in Application No. (Series Code / Serial Number)				
3. received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).				
* See the attached detailed Office action for a list of the certified copies not received.				
14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).				
Attachment(s)				
<ul> <li>15) Notice of References Cited (PTO-892)</li> <li>16) Notice of Draftsperson's Patent Drawing Review (PTO-17) Information Disclosure Statement(s) (PTO-1449) Paper</li> </ul>	-948) 19)		y (PTO-413) Paper N Patent Application (F	

Application/Control Number: 09/247,219

Art Unit: 1761

### **DETAILED ACTION**

#### Final

## Claim Rejections - 35 USC § 103

The 35 USC 103 rejections noted in the previous Office Action have been withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlstrom et al (U.S. Patent 5,006,349) in view of Tomasula (U.S. Patent 5,432,265).

Dahlstrom et al (Dahlstrom) teaches a protein product and a process for continuously reacting protein solution preferably by direct acidification to produce food products (U.S. Patent 5,006,349, col. 2, lines 30-35). Dahlstrom teaches that an ingredient stream and a protein stream can be combined under high pressure (col. 4, lines 10-20). The protein stream may be derived from a number of products including soy milk and cereal protein slurries (col. 3, lines 30-35). In example 11, Dahlstrom teaches a milk-soy protein cheese product. Dahlstrom teaches that a coagulum of the protein steam and other ingredients can be made. The mixture is heated at 150°F. After the mixture is prepared, a sonolator is used with at 800 psi. As the process continues, the pressure is reduced to 400 psi (col. 8, lines 40-60). The pH of the mixture was 5.2. However, Dahlstrom teaches that the pH can be optimized to vary the consistency of

Application/Control Number: 09/247,219

Art Unit: 1761

the product. Thus, it would have been obvious to one of ordinary skill in the art to optimize the pH and the concentration level of protein in the coagulum because the pH level and protein level affect the desired consistency of the product.

Although Dahlstrom teaches a vegetable protein concentrate product in the form of a soy milk cheese product, Dahlstrom is silent as to the use of carbon dioxide to precipitate protein. However, Tomasula teaches a process for the continuos production and removal of products from a high-pressure system. In this process, Tomasula broadly teaches that carbon dioxide under pressure can precipitate proteins (U.S. Patent 5,432,265, col. 1, lines 53-57). Furthermore, Tomasula teaches that by injecting carbon dioxide and increasing the pressure, carbonic acid is formed which lowers the pH. Tomasula teaches that this is desirable as the lower pH precipitates the protein. Thus, it would have been obvious to one of ordinary skill in the art to provide Dahlstrom with carbon dioxide because the carbon dioxide under pressure can lead to the precipitation and concentration of protein.

## Response to Arguments

Applicant's arguments with respect to claims 1-14 have been considered but are most in view of the new ground(s) of rejection.

Although the remarks field on June 29, 2000 are moot in light of the new grounds of rejection, it is noted that the applicant argues that Tomasula is an improper reference. The applicant argues that Tomasula is directed toward the removal of milk proteins from aqueous media and not a vegetable protein product. However, the teachings of

Application/Control Number: 09/247,219

Art Unit: 1761

Tomasula are not limited milk proteins. Tomasula teaches a process for the continuos production and removal of products from a high-pressure system. In this process, Tomasula broadly teaches that carbon dioxide under pressure can precipitate proteins (U.S. Patent 5,432,265, col. 1, lines 53-57).

#### Conclusion

- 1. No claim is allowed.
- 2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip DuBois whose telephone number is (703) 305-0508. The examiner can normally be reached on Monday through Friday from 8:00

Art Unit: 1761

to 5:30. The examiner is not in the office the second and fourth Fridays of each month.

- 4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gabrielle Brouillette, can be reached at (703)-308-0756. The fax number for this Group is (703)-305-3602.
- 5. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Philip A. DuBois 09/05/00

MILTON CANO PRIMARY EXAMINER Page 5

GAU 1761